

THE BRAIN: OUR SENSE OF SELF**West Virginia Science Content Standards and Objectives – Grades 6, 7, 8**

| Lesson | Standard | Objective |
|--------------------|---|--|
| 2, 3 | SC.6.1.1 SC.7.1.1 SC.8.1.1 | Explain that scientists formulate and test their explanations of nature using observation and experiments. |
| 2, 3, 4 | SC.6.1.2 SC.7.1.2 SC.8.1.2 | Recognize that scientific knowledge is subject to modification as new scientific information challenges current theories. |
| All lessons | SC.6.2.1 SC.7.2.1 SC.8.2.1 | Cooperate and collaborate to ask questions, find answers, solve problems, and conduct investigations to further an appreciation of scientific discovery. |
| All lessons | SC.6.2.2 SC.7.2.2 SC.8.2.2 | Formulate conclusions through close observations, logical reasoning, objectivity, perseverance and integrity in data collection. |
| All lessons | SC.6.2.3 SC.7.2.3 SC.8.2.3 | Apply skepticism, careful methods, logical reasoning and creativity in investigating the observable universe. |
| 2, 3, 4 | SC.6.2.4 SC.7.2.4 SC.8.2.4 | Use a variety of materials and scientific instruments to conduct explorations, investigations and experiments of the natural world (e.g., barometer, anemometer, microscope, computer). |
| 3, 4 | SC.6.2.5 SC.7.2.5 SC.8.2.5 | Demonstrate safe techniques for handling, manipulating and caring for science materials, equipment, natural specimens and living organisms. |
| 3, 4 | SC.6.2.6 SC.7.2.6 SC.8.2.6 | Utilize experimentation to demonstrate scientific processes and thinking skills (e.g., formulating questions, predicting, forming hypotheses, quantifying, identifying dependent and independent variables). |
| 2, 3, 4 | SC.6.2.7 SC.7.2.7 SC.8.2.7 | Construct and use charts, graphs and tables to organize, display, interpret, analyze and explain data. |

WEST VIRGINIA ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: OUR SENSE OF SELF

| | | |
|--------------------|---|--|
| All lessons | SC.6.2.8 SC.7.2.8 SC.8.2.8 | Use inferential reasoning to make logical conclusions from collected data. |
| 2, 3, 4 | SC.6.2.9 SC.7.2.9 SC.8.2.9 | Use appropriate technology solutions to gather data; graph data; interpret data; and analyze information. |
| 2, 3, 4 | SC.6.3.2 SC.7.3.2 SC.8.3.2 | Construct a variety of useful models of an object, event, or process. |
| 2, 3, 4 | SC.6.3.3 SC.7.3.3 SC.8.3.3 | Compare and contrast changes that occur in an object or a system to its original state. |
| 2, 3, 4 | SC.7.4.4 | Compare the level of organization of cells, tissues and organs in living things. |
| 2, 3, 4 | SC.7.4.9 | Relate how an organism's behavior response is a combination of heredity and environment. |
| 3, 4 | SC.7.5.1 | Make and compare different proposed solutions to an identified problem in light of specified criteria. |
| 4, 5 | SC.6.6.1 SC.7.6.1 SC.8.6.1 | Use scientific reasoning and the knowledge of science and technology to make informed personal decisions at the local and global levels. |

West Virginia Math Content Standards and Objectives – Grades 6, 7, 8

| Lesson | Standard | Objective |
|---------------|------------------|--|
| 4 | MA.6.1.6 | Solve problems in context involving addition, subtraction, multiplication, and division of whole numbers, fractions, mixed numbers and decimals. |
| 4 | MA.6.2.9 | Use variables to represent and solve real world problems appropriate for the 6 th grade using multiple strategies. |
| 4 | MA.6.5.1 | Collect, organize, display, and read data using appropriate graphs and tables. |
| 4 | MA.7.1.5 | Perform operations with integers (e.g., addition, subtraction, multiplication, division). |
| 4 | MA.7.1.7 | Solve application problems with whole numbers, decimals, fractions and percents. |
| 4 | MA.7.2.13 | Represent and solve real world problems appropriate for 7 th grade using multiple strategies. |

WEST VIRGINIA ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: OUR SENSE OF SELF

| | | |
|--|--|---|
| 4 | MA.7.5.3 | Collect, organize, graphically represent, and interpret data displays including: frequency distributions, line plots, scatter plots, box and whiskers, and multiple-line graphs. |
| 4 | MA.8.1.6 | Solve application problems with whole numbers, decimals, fractions, percents and integers including, but not limited to, rates, tips, discounts, sales tax and interest. |
| 4 | MA.8.2.10 | Represent and solve real world problems appropriate for 8 th grade using multiple strategies. |
| 4 | MA.8.5.3 | Create and extrapolate information from multiple-bar graphs, box and whisker plots, and other data displays using appropriate technology. |
| 4 | MA.8.5.5 | Draw inferences and construct convincing arguments, including misuses of statistical or numeric information, based on data analysis. |
| West Virginia Reading and Language Arts Content Standards and Objectives – Grades 6, 7, 8 | | |
| Lesson | Standard | Objective |
| All lessons | RLA.8.1.3 | Use comprehension strategies (e.g., make judgments; hypothesize; critique; analyze). |
| 2, 3, 4, 5. | RLA.6.1.4 | Analyze text to determine transitional words/language. |
| All lessons | RLA.6.1.5 RLA.7.1.4 | Use comprehension strategies (e.g., generalize; evaluate; infer; paraphrase, draw conclusions, interpret meaning). |
| All lessons | RLA.6.1.10 RLA.8.1.10 | Use resource materials (e.g., dictionary; glossary; thesaurus) to determine the meaning of unknown words or multiple meaning words. |
| All lessons | RLA.6.1.11 | Use connotation and denotation to understand meaning. |
| All lessons | RLA.6.1.12 RLA.7.1.13 RLA.8.1.11 | Use root words, prefixes and suffixes to spell words, change word meanings and generate new words appropriate to grade level. |
| 2, 4, 5 | RLA.6.2.2 RLA.7.2.1 RLA.8.2.2 | From a prompt, use the writing process to develop a composition that contains specific, relevant details and transitions. |
| 2, 3, 4, 5 | RLA.6.2.3 | Use writing strategies to address specific writing purposes (e.g., creative; journalistic; essay; narrative; informative; persuasive) and address various audiences (e.g., peers; teachers; employers). |
| 2, 3, 4, 5 | RLA.7.2.3 | Use the writing process to compose various types of writing (e.g., creative; informative; expository; persuasive; articles; essays; journals; letters; poetry; research/reports). |

WEST VIRGINIA ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: OUR SENSE OF SELF

| | | |
|---|--|---|
| 2, 3, 4 | RLA.6.2.19 | Use traditional organizers to create, read, interpret and organize information in the form of tables, graphs, diagrams and charts. |
| All lessons | RLA.6.3.1 RLA.7.3.1 RLA.8.3.1 | Recognize and exhibit oral communication skills (e.g., volume; rate; audience etiquette). |
| 2, 4 | RLA.8.3.2 | Present an oral report with graphic aids (e.g., tables; graphs; diagrams; charts). |
| All lessons | RLA.8.3.3 | Think critically about oral/visual information presented; relate personal experiences and apply the information to global situations. |
| All lessons | RLA.6.3.3 RLA.7.3.4 RLA.8.3.4 | Listen in order to comprehend topic and purpose (e.g., of a guest speaker; informational video; televised interview; radio news program). |
| All lessons | RLA.6.3.4 | Reach consensus in group discussions or settings. |
| All lessons | RLA.7.3.5 RLA.8.3.5 | Play a variety of roles in group discussions, including active listener and discussion leader and/or facilitator. |
| West Virginia Health Content Standards and Objectives – Grades 6, 7, 8 | | |
| Lesson | Standard | Objective |
| 2, 3 | HE.6.1.4 | Describe the major parts and functions of the nervous system. |
| 1, 2 | HE.6.4.3 | Identify the importance of respecting people's differences. |
| 1, 2 | HE.7.4.3 | Recognize the importance of respecting individual differences. |
| 4 | HE.8.6.1 | Identify personal health goals and choose strategies regarding nutrition and alcohol, tobacco, drug use and personal safety to achieve optimal personal health. |
| 4 | HE.8.6.3 | Describe how personal health goals are influenced by changing information, abilities, priorities and responsibilities. |